



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,382	11/14/2003	Aulis Perala	111075.01	9593
25944	7590	10/25/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320				MENON, KRISHNAN S
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/712,382	PERALA, AULIS
	Examiner Krishnan S. Menon	Art Unit 1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 August 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1103</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Claims 1-14 are pending as amended 8/16/06

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 2 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent No. 6,719,148. This is a double patenting rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1,3,4 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Janovac (US 4,491,517).

Janovac teaches a filter cloth or screen having plurality of transverse and longitudinal yarns (see figures), yarns 14 have larger diameter; 1.5-2.5 time larger (see claim 1), which meets the diameter ratio range claimed; regarding the larger diameter yarn being on the underside, the yarn 14 would be at a lower level than the other yarns and would form the channels as claimed at least because of its size (underside in the claim is further defined as a portion facing the filtering element; the filaments 14 would function as recited when arranged against a surface).

The preambles of the claim, solid liquid separator filter cloth or filtration module, are only intended use at best, and are not patentable limitations. The ‘filter further to be arranged’ also is not a positive limitation because it is not actually so arranged. Claims are only considered as reciting the sub-combination filter cloth, or filtering module. The limitation, ‘filtering portion having structure and density …’ also would not further limit the claims without actually reciting specific structure and densities. The screen of the reference does have certain structure and density which would be suitable for a desired solid-liquid separation, albeit not within applicant’s desires. The filter cloth is arranged in a manner as recited in claims 8 and 9, that it would perform the function claimed if set over a filter element.

2. Claims 1 and 3-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Brushafer et al (US 5,843,542).

Brushafer teaches a filter cloth or filtering module having transverse and longitudinal yarns as seen in figure 1, in which the yarns 14a are larger in diameter than the rest of the yarns, in the ratio as claimed (0.027/0.010: column 5 lines 10-17). The material is heat-shrinkable as claimed – see column 5 lines 38-46. It is also formed in a tubular form, which can be used as a sleeve over tubular items – see column 3 lines 25-34 (Applicant's specification does not limit the "filtering module" to a specific structure, but figure 3 represents a tubular structure.). With respect to claim 6, the batt, according to applicant's specification is a coating layer. This reference also teaches a coating layer on the cloth: see column 6 lines 22-35. The remainder of the claims has functional language and/or intended use limitations as discussed above in paragraph 1.

3. Claims 1,3,4,6-9 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer (US 5,180,409).

Fisher teaches a filter cloth, a filtering module and a filtering apparatus – see figures. The filter cloth has the longitudinal and transverse yarn as claimed, with support yarns 14 larger in diameter than the other yarns (larger than the fill yarn diameter by 1.4 or more: examples, claims 12,13). The support yarns form the claimed channel structure. The cloth is wound around an element to form the filter apparatus. Solid-liquid separation is intended use; the filter of the reference is capable of doing it. In addition, the cloth is described as useful for other purposes such as tubular filter -

see column 8 lines 11-15. They can be designed for "a desired separation" – see column 7 lines 4-43.

4. Claim 14 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fischer'409.

Claim 14 differs from the teaching of the reference in having the filtering module comprising heat-shrinkable yarns for stretching over the filtering element by thermal treatment. However, "stretching over ... by thermal treatment" is a process step; the claim is for a finished product – the filtering apparatus. A process step in a product claim is not patentable unless applicant can show novelty/non-obviousness with secondary evidence. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Thermal contraction is also described by the applicant as known in the art – see paragraph 4 of the specification. Applicant has not disclosed any specific material or construction that would distinguish the process step of thermal treatment that would warrant the product claim patentable over the prior arts considered. Warming a metallic cloth filter above the ambient temperature before installing over the filter element and then cooling it also would meet the limitation "thermal treatment".

5. Claims 1, 4, 7-9, and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Lumsden, U.S. Patent No. 3,716,138.

Regarding Claim 1, Lumsden discloses a solid-liquid separation filter cloth composed of a plurality of yarns (#65, 66) in the transverse and the longitudinal directions, the filter cloth comprising a filtering portion having a structure and density according to desired filtering characteristics for separating liquid from a mixture consisting of solids and liquid, and which filter cloth is further to be arranged against a filtering element in a filtering apparatus (Col. 4, Lines 5-10), and an underside of the filter cloth comprises substantially parallel yarns that are thicker (#66) than the rest of the yarns of the cloth, and that the thicker yarns are placed at predetermined intervals defined by the other yarns of the filter cloth extending parallel thereto to provide desired parallel channels therebetween (see the figures).

Regarding Claim 4, Lumsden discloses that the thicker yarns (#66) in the underside of the filter cloth have the same direction as a weft.

Regarding Claim 7, Lumsden discloses a filtering module made of filter cloth comprising a filtering layer composed of yarns (#65, 66) in the transverse and the longitudinal directions, and an underside of the filter cloth is comprised of substantially parallel yarns (#66) that are thicker than the rest of the yarns of the cloth, and that the thicker yarns are placed at predetermined intervals defined by the other yarns of the filter cloth extending parallel thereto.

Regarding Claim 8, Lumsden discloses the filter cloth being arranged such that the channels formed in a bottom portion of the cloth are directed according to a structure of the filtering module (Fig. 11).

Regarding Claim 9, since the examiner has considered the claimed invention in independent Claim 7 being that only of the subcombination of a filtering module comprising of a filter cloth and does not include limitations of the filtering element, it is unclear if applicant is adding the limitation of a filtering element in this claim. For examination purposes, the examiner considered that the invention being claimed being capable of having its channels lead a filtered liquid to openings in a filtering element used therewith. Lumsden discloses the filter cloth being arranged such that the channels formed in a bottom portion of the cloth are directed according to a structure of the filtering module (Fig. 11).

Regarding Claim 11, Lumsden discloses a solid-liquid separation filtering apparatus, comprising: a filtering module (#19); and a filtering element (#12), wherein the filtering module is arranged on a filtering element as a filtering surface where liquid is separated from a mixture consisting of solids and liquid where the filtering module is made of a filter cloth comprising a filtering layer composed of yarns (#65, 66) in the transverse and the longitudinal directions, and an underside of the filter cloth comprises substantially parallel yarns that are thicker (#66) than the rest of the yarns of the cloth, and that the thicker yarns are placed at predetermined intervals defined by the other yarns of the filter cloth extending parallel thereto to provide desired parallel channels therebetween (Fig. 11).

Regarding Claim 12, Lumsden discloses the filter cloth being arranged such that the channels formed in a bottom portion of the cloth are directed according to a structure of the filtering module (Fig. 11).

6. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as being obvious over, SE 431,826.

This reference was submitted by the applicant in an IDS, with a copy submitted with the parent application. Applicant is requested to submit an English translation of this reference for proper consideration.

According to applicant's disclosure in paragraph 5, SE teaches a filter cloth having thicker yarns interwoven to the underside of a cloth of thinner yarns, forming two layers. The cloth is intended for use in liquid-solid filtering. The reference teaches that the yarns 6,12 and 18 (see figure) are thicker than the yarns (2,3,7,9,10,16,17) on the top; the ratio of the diameters matches the claimed range; and the yarns are parallel yarns, with spacing between. Even though the applicant's invention is intended as an improvement over this reference, the claims do read on the reference. The first layer of the two-layer fabric would read on to the "batt". The "heat-shrinkable" part, according to the applicant, is already known. More over, most plastics, such as polyolefins, are known to be heat shrinkable; metallic fiber cloths can be stretched over surfaces by thermal treatment as shown above. Thermal treatment is also a process step in a product claim. Thus the claims that recite the 'batt', 'heat-shrinkable' and 'thermal

treatment' would be obvious to one of ordinary skill, if the reference does not explicitly teaches it.

Response to Arguments

Applicant's arguments filed 8/16/06 have been fully considered but they are not persuasive.

First of all, the examiner considered the recitation of claim 11 with respect to the Lumsden reference as was promised by Examiner Kim in the interview summary of 9/13/06. Claim 11 only recites that the filtering module is arranged over the filtering element. The filtering surface is formed by the filtering module (in the case of the reference, it is the screen). Regarding the limitation "an underside of the filter cloth", the screen of the reference has such an underside, and this underside forms the channels as claimed with the strands 66, which is clearly seen in the figures of the reference. The recitation in the claim "i.e. the surface to be against the filtering element," is not a patentable limitation because it does not limit the claim in any way, but only further defines the 'underside of the filter cloth'. The frame of the filter of the reference (on which the screen is stretched over: see figures) is a filter element, and reads on the recitation of the filter element. Thus the reference anticipates the claim.

Argument that Lumsden is not suitable for solid liquid separation: this argument is not convincing because the Lumsden screen is capable of separating solids from liquids as claimed. Claim language only recites "desired filtering characteristic". Reference screen is at least capable of removing "rocks" from a stream of water, which

is separating solids from liquids. Moreover the reference in column 4 lines 5-15 does teach solid-liquid separation, such as separating, cleaning, dewatering, etc.

Argument that Lumsden does not teach a filter cloth arranged against a filtering element: see above for the response.

Argument that Lumsden does not provide thicker parallel yarns on the underside: Yarns or weft wires 66 are thicker and they extend to the underside of the filter cloth or screen of the reference. Applicant's argument in this regard are beyond the scope of the claim. Applicant's disclosed structure (thicker yarn 8) has yarn 7 wrapped around from its underside; thus making it *not the yarn that is truly on the underside*, because there is yarn 7 under it. Thus the claim language only requires the thicker yarn to stick out on the underside relative to the plane of the cloth, which the reference yarn 66 does.

Argument that solids would easily pass through the coarse screen of Lumsden: this is not convincing because the claim requires only "desired" filtering characteristic. If the desired characteristic is only to filter out boulders from the stream, the screen would definitely work. Also the argument that the liquids and solids would not flow under the screen is purely speculation on the part of the attorney, without any factual evidence, as is most of the arguments presented in the remarks.

Rest of the arguments are moot; new grounds for rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Krishnan S Menon
Primary Examiner
Art Unit 1723